



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,330	06/23/2003	Kyung-Geun Lee	1293.1633	6586

49455 7590 03/15/2006

STEIN, MCEWEN & BUI, LLP  
1400 EYE STREET, NW  
SUITE 300  
WASHINGTON, DC 20005

EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/600,330	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Nathan Danielsen	<b>Art Unit</b> 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-38 are pending.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

3. The drawings are objected to because figure 8 contains a line through the text of block 110. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

4. Claims 30 and 31 are objected to because "patters" should be --patterns--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al (hereinafter Ito) (US Patent 5,881,032).

Regarding claims 1 and 12, Ito discloses an information storage medium (and associated method of recording/reproducing to/from it) comprising a user data area, wherein information about the user data area, where user data is recorded, is recorded in at least one of an area right before and an area right after a basic recording unit of the user data area ("the internal structure of each sector is shown in FIG. 11; each sector thus comprises a header containing the address uniquely identifying the sector, a data block to which user data is recorded, and an error correction code (ECC) block to which is recorded a code used for error correction during reproduction" (col. 2, lines 6-11)).

Regarding claims 2 and 13, Ito discloses where the basic recording unit of the user data area is one of a physical cluster, an error correction code (ECC) block, a sector, and a frame (see claims 1 and 12 for citation).

Regarding claims 3, 14, and 19, Ito discloses where the information about the user data area is recorded in at least one of a run-in area (header in figure 11) and a run-out area (ECC in figure 11) that are right before and after the physical cluster, respectively (figure 11).

Regarding claims 4, 8, 15, and 20, Ito discloses where the information storage medium has at least two information storage layers (figures 1D-4 and 12), and the information about the user data area is recorded in at least one of the area right before and the area right after the

Art Unit: 2652

basic recording unit of the user data area in different patterns for the different information storage layers (see citation for claims 1 and 12 in addition to figures 3 and 4 where the sector addresses increase from lead-in to lead out areas on layer one and continue according to the solid black lines in the positive sector address direction).

Regarding claims 6, 10, 17, and 22, Ito discloses where the information about the user data area is storage layer information ("each sector thus comprises a header containing the address uniquely identifying the sector" (col. 2, lines 7-8) where each layer has a predetermined range of address as shown in figures 3 and 4).

Regarding claims 5, 7, 9, 11, 16, 18, 21, and 23, Ito discloses where the information about the user data area is recorded using addresses (see claims 6, 10, 17, and 22 for citation).

Regarding claims 24-26 and 28, Ito discloses the information storage medium is one of recordable and reproduction-only optical discs (inherent as all discs fall into either of these categories unless so badly damaged as it becomes impossible record/reproduce to/from them; additionally, Ito discloses where user data recorded to the data blocks shown in figure 13D and where Ito's invention can only reproduce information from optical discs (title)).

Regarding claim 27, Ito discloses where the information about the user data area is recorded using one or more addresses of the ECC block (see claims 2 and 13 for citation).

Regarding claim 29, Ito discloses where each of the information storage layers includes a lead-in area (lead-in areas 1a in figures 1D-4), a lead-out area (lead-out areas 1b in figures 1D-4) and the user data area (unlabeled regions between lead-in areas 1a and lead-out areas 1b in figures 1D-4).

Regarding claims 30 and 31, Ito discloses where the different patterns are one of different consecutive patterns of identical intervals and different patterns of different sized intervals (inherent in the citation of claims 1 and 12).

Art Unit: 2652

Regarding claim 32, Ito discloses a method of operating a storage medium having a user data area, the method comprising:

accessing information about the user data area, where user data is recorded, from at least one of an area right before and an area right after a basic recording unit of the user data area (inherent in "it is also possible to provide an information reproducing apparatus capable of recognizing the reproduction direction of the spiral recording patterns on an information storage medium comprising plural recording layers" (col. 8, lines 39-42)); and

operating the storage medium based on the accessed information (see above citation).

Regarding claim 33, Ito discloses where the method of claim 32 further comprises recognizing a layer of the storage medium based on the accessed information, wherein the operating of the storage medium includes recording and/or reproducing data with respect to the layer (inherent in the different range of addresses assigned to each layer, as illustrated by figures 3 and 4).

Regarding claim 34, Ito discloses where the recognizing of the layer comprises recognizing the layer in response to the accessed information belonging to a predetermined group of addresses (see claim 33 for citation).

Regarding claim 35, Ito discloses where the method of claim 32 further comprises identifying a desired layer of the storage medium based on ranges to which the accessed information belongs (see claim 33 for citation).

Regarding claim 36, Ito discloses where the identifying of the desired layer comprises: recognizing a storage layer of the storage medium as the desired layer in response to the accessed information belonging to a predetermined range (see claim 33 for citation); and

in response to the accessed information not belonging to the predetermined range, accessing another storage layer of the storage medium so as to determine whether accessed information thereof belongs to the predetermined range (see col. 16, line 30 through col. 17, line 4 and figure 8).

Regarding claim 37, Ito discloses where the operating of the storage medium includes recording and/or reproducing data with respect to the desired layer (inherent in a reproducing device (title)).

Regarding claim 38, Ito discloses where the method of claim 32 further comprises identifying storage layers of the storage medium, wherein the identifying of the storage layers comprises:

recognizing a first layer of the storage layers in response to the accessed information belonging to a first predetermined range (see col. 16, line 30 through col. 17, line 4 and figure 8);

in response to the accessed information not belonging to the first predetermined range, accessing a second layer of the storage layers so as to determine whether accessed information thereof belongs to a second predetermined range (see col. 16, line 30 through col. 17, line 4 and figure 8);

recognizing the second layer of the storage layers in response to accessed information thereof belonging to the second predetermined range (see col. 16, line 30 through col. 17, line 4 and figure 8); and

in response to the accessed information of the second layer not belonging to the second predetermined range, accessing another layer of the storage layers so as to determine whether accessed information thereof belongs to the second predetermined range (see col. 16, line 30 through col. 17, line 4 and figure 8).

***Citation of Relevant Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Heemskerk et al (US Patent 6,628,584) and Lee et al (US Patent 6,999,390) disclose optical discs with addresses and other information stored in the run-in and run-out areas on either side of physical clusters.
- b. Nishiuchi et al (US Patent 6,894,962) disclose four unique identifiers for identifying the layers and locations of sectors on an optical disc.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 8:30 AM - 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Danielsen  
03/10/2006

ND

  
WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER